title: Getting Started

import Tabs from '@theme/Tabs'; import TabItem from '@theme/TabItem';

To start searching on MEV-Share, you will first need to connect to a MEV-Share Node. As a reminder, the MEV-Share Node is responsible for receiving transactions and bundles from users, and selectively sharing information ("hints") about them with searchers. When a searcher wants to include a transaction in their bundle, they use that transaction's hash. The MEV-Share Node replaces it with the original transaction before sending the bundle to a block builder.

Connect to MEV-Share Node

Flashbots operates an MEV-Share Node on the Ethereum mainnet. This Node provides endpoints for user transactions and searcher bundles. Additionally, it offers an Server-Sent Events (SSE) streaming endpoint, broadcasting pending events/transactions to searchers.

The simplest way to connect to the Flashbots MEV-Share Node is to use a<u>client library</u>. For this guide, we'll refer to <u>mev-share-client-ts</u>.

Add library to your project:

bash yarn add @flashbots/mev-share-client

Use the following code to import the library (Replace ALL_CAPS placeholders with your data):

"typescript import {Wallet, JsonRpcProvider} from 'ethers'; import MevShareClient, { BundleParams, IPendingBundle, IPendingTransaction, TransactionOptions, } from '@flashbots/mev-share-client';

const provider = new JsonRpcProvider(RPC_URL); const authSigner = new Wallet(FB_REPUTATION_PRIVATE_KEY, provider); const mevShareClient = MevShareClient.useEthereumMainnet(authSigner); ```

Connecting to Goerli:

typescript const mevShareClient = MevShareClient.useEthereumGoerli(authSigner);

To use custom network parameters, you can instantiate a new MevShareClient instance directly. This example is what the client uses to connect to mainnet:

typescript // connect to MEV-Share on mainnet const mevShareClient = new MevShareClient(authSigner, { name: 'mainnet', chainId: 1, streamUrl: 'https://mev-share.flashbots.net', apiUrl: 'https://relay.flashbots.net', });

Further documentation on the client library can be found in the mev-share-client-ts.

For Rust users, thanks to Paradigm's effort, we have a Rust MEV-Share client mev-share-rs.

If you want a complete MEV bot framework, could also directly go for <u>Artemis</u>, which has built-in support for MEV-Share as outlined in this <u>example</u>.

A note on other languages

If you're coding in a language that doesn't yet have a MEV-Share Node client library, you can send transactions and bundles directly with the <u>JSON-RPC endpoint</u>. To listen for transactions, all you need is an HTTP client. More details on that in the <u>Event Stream</u> page.

Now you should be connected to the Flashbots MEV-Share Node. Continue reading on the next page to learn how tdisten for hints about pending transactions shared by the MEV-Share Node.

:::note A note for experienced searchers getting acquainted with MEV-Share

Searching on MEV-Share is different from searching on the mempool in that only certain parts of a transaction are shared with searchers. In the mempool, we can see all parts of a transaction, such as its calldata or who the transaction is from. But on MEV-Share, a transaction might only reveal its function selector, making a traditional arbitrage calculation infeasible.

There are three primary strategies for searching on MEV-Share:

- Probabilistically: send many bundles that probabilistically backrun MEV-Share orderflow.
- On-chain: perform more of your searching on-chain instead of off-chain.
- Existing: only search on transactions which share all the information you need.

To maximally leverage MEV-Share searchers will need to employ new strategies.